

REMARKS/ARGUMENT

Claims 1-4 are pending. Claim 1 is the only independent claim.

Claims 1, 2 and 4 were rejected under 35 U.S.C. § 103 over U.S. Patent 6,175,550 (Van Nee et al.). Applicant traverses and submits that independent claim 1 is patentable for at least the following reasons.

Independent claim 1 is directed to a multi-rate transmission apparatus in which a coding ratio is varied in accordance with an input modulation operation mode to allow a transmission operation with a single input clock signal for any input modulation mode. The apparatus comprises: data processing means for reading in data having a bit width suitable for a modulation system corresponding to the input modulation mode, coding means for performing coding processing parallelly for the data read in by the data processing means, and transmission means for transmitting the data, for which the coding processing has been performed, in accordance with the modulation system and the varied coding ratio.

As a result of the recited structure, even if the modulation mode is varied, transmission operation can be achieved on the basis of a single input clock signal. This feature allows, for example, the apparatus to transmit even with a relatively slow input clock by, for example, performing coding in a parallel manner. Specification at page 9, lines 15 through 26. Thus, even if the data transfer rate is changed by modifying the the modulation system or the coding rate, device operation can continue to be performed using the single clock signal.

On the other hand, in Van Nee, the control circuitry 15 scales operating parameters, such as the transmission rate, by controlling the clock 17 to adjust the time base to

the IFFT 16. That is, in Van Nee, the signal from the clock is changed on the basis of a change in transmission rate. That is, the clock produces different signals depending on the transmission rate desired.

The Examiner took the position in the Office Action that in fact Van Nee teaches the recited feature discussed above. However, there is no such teaching in Van Nee. In Van Nee, the only description as to how to change the operating parameters, at least as they relate to the characteristics of a particular carrier, involves controlling the clock to adjust the time base. See, e.g., col. 4, lines 58-67. Moreover, the prior art discussed in the Background section of the present application also changes the rate of the clock to change the coding rate or modulation system.

Further, although the Examiner took the position that Van Nee shows maintaining the symbol duration T_s while changing the modulation scheme, the Applicants are unaware of any such teaching in Van Nee, and the Examiner has failed to identify any portion of Van Nee that shows it. This failure of Van Nee to teach this feature, when viewed together with the prior art mentioned in the background of the present application, makes clear that the rejection is untenable.

For at least the reasons set forth above, claim 1 is believed clearly to be distinguished over Van Nee.

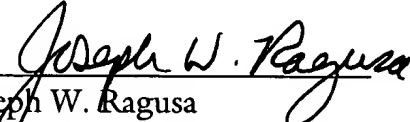
The other claims in this application are each dependent from independent claim 1 discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the

individual reconsideration of the patentability of each on its own merits is respectfully requested.

In view of the foregoing remarks, Applicant respectfully requests favorable reconsideration and early passage to issue of the present application.

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Respectfully submitted,

By 
Joseph W. Ragusa

Registration No.: 38,586

DICKSTEIN SHAPIRO MORIN &
OSHINSKY LLP

1177 Avenue of the Americas

41st Floor

New York, New York 10036-2714

(212) 835-1400

Attorneys for Applicant